

Well Name: AMOCO-WESTAN-CAVANAUGH 1

API # 05005062030000	Surface Legal Location	Field Name	Permit Number	State CO	Well Configuration Type
Ground Elevation (ft) 5,591.00	Casing Flange Elevation (ft)	Orig KB-Ground Distance (ft) 12.00	KB-Casing Flange Distance (ft)	Spud Date 2/24/1971 00:00	Final Rig Release Date 9/3/2020 13:00

Job: Abandon Well / Abandon Well , 8/16/2020 06:00, 16192811

Job Category Abandon	Primary Job Type Abandon Well	Secondary Job Type Abandon Well
Start Date 8/16/2020	End Date 9/1/2020	

Objective

Post-Job Summary

Rpt #	Start Date	End Date	24 Hr Summary	Remarks
1.0	7/31/2020	7/31/2020	Met with M&M and utility companies to clear one calls. Dis grid search of area found two possible spots to excavate.	Met with M&M and utility companies to clear one calls. Dis grid search of area found two possible spots to excavate.
2.0	8/3/2020	8/3/2020	Filled out ground disturbance, excavate area located by metal detector. Expose well bore, well 5 ft extension to above ground level.	Filled out ground disturbance, excavate area located by metal detector. Expose well bore, well 5 ft extension to above ground level.
3.0	8/4/2020	8/4/2020	Stripping top soil, started working oin cut and fill to bring pad to grade.	Stripping top soil, started working oin cut and fill to bring pad to grade.
4.0	8/5/2020	8/5/2020	Working on cut and fill to bring pad to grade.	Working on cut and fill to bring pad to grade.
5.0	8/6/2020	8/6/2020	Tracked in slopes blade drill pad	Tracked in slopes blade drill pad
6.0	8/10/2020	8/13/2020	Mob loader to Wattenberg yard to sort mat boards	Mob loader to Wattenberg yard to sort mat boards
7.0	8/11/2020	8/11/2020	Sort through mat boards at yard to pick out the decent ones.	Engineer discussed commencing re-entry operations on 8/17 with COGCC field inspector Susan Sherman.
8.0	8/12/2020	8/12/2020	Load and haul mat boards to location	Load and haul mat boards to location
9.0	8/13/2020	8/13/2020	Build approach and start placing mat boards on access road	Build approach and start placing mat boards on access road
10.0	8/14/2020	8/14/2020	Laying rig mats on access road, tie in approach	Laying rig mats on access road, tie in approach
11.0	8/16/2020	8/17/2020	PJSM. Assemble and set sound walls. Set in R/U Living quarters, Stage Rig equipment on Tiberius Pad. 98% of Rig equipment delivered, waiting on load of HWDP to arrive. Set 94 sets of Eco Mats on Lease Road, Set Containment liner for Rig and equipment. Rig Manager and rig crew arrived. Set in RM and crew shacks rig up same. PJSM dress out Mud tank, walk ways and handrails on Rig & Catwalk.	
12.0	8/17/2020	8/18/2020	Pre-Spud Safety meeting with Crestone Supt's, WSS, Rig Crews, Trucking and third party vendors. Discussed Social Distancing, Rig move/Rig up operations. (Note Susan Sherman with COGCC attended Pre-Spud. Set in Rig Mats, Cat Walk/Sub base, Set in Q92 Change over flange, Set in 11" 3M BOP, Spot in Draw works, Level Rig, Secure Belly Pods, Set in Mud tank, Dog house, Mud Pump 1 & 2, Set in Light Plant, Pipw Handler trailer, Set in Solids control equipment, Begin Rig up operation of all equipment. Conduct Pre Raise inspection. Raise and scope Mast, Continue R/U operations. Change out pipe rams to new 4" solid body pipe rams, toque BOP equipment with Ensign pressure tester, Rig up Mesa 2X2 15K choke manifold to BOPE, Nipple down Annular and inspect bolts, Clean bolts and reinstall annular on BOP. PJSM with Ensign Pressure tester. Set Test Plug for Q92 wellhead, Test Choke Manifold 250 Low 10 Mins - 3000 High 10 Mins. Tested Upper Rams, Upper Kelly Valve, Kill valves, Manual Choke lines, 250 Low 10 min, 3000 High 10 min. Test Annular 250 Low 10 min, 1500 High 10 Min, Test Mud lines 1800 psi for 5 min, Blind Rams, 250 Low 10 min, 3000 High 10 min. All test Charted.	No Accidents, incidents. 1 Spill of a 1/2 Gallon Hydraulic oil. Reported and Recovered.

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13.0	8/18/2020	8/19/2020	<p>PJSM with WSS, Rig Crew, third party and COGGC Susan Sherman Pressure test TIW, 250 Low 3 K High, Each test held 10 min, Repair Leak on Mud line, Retest Mud Line 250 L, and 2000 psi H (3 Stand pipe Union Failures). Change Swivel Packing on TDS. Take on Water to Pre-Mix tank and Fresh water uprights. Complete miscellaneous rigging up. Perform Pre-Spud inspection with Crestone Safety Rep's. Make correction. Rig Crew Performed Drops Inspection. Made all Corrections on drops and 70% correction on Pre-Spud. End of Tour Debriefing with Rig Crew and third Party. Pick up 7 7/8" Smith FD8+, SN# RJ492, 3X16 jets, Bits sub with float, Install Grant rotating head rubber, and Tag Top cement plug @15'. (Functioned Crown Saver System).</p> <p>(Rig Accepted 8/18/2020 @1800hrs). Drill top Plug F/15' - T/34' 380 gpm, 4-5 WOB, 40RPM. Wash and ream F/34' - T/178' 380GPM, 4-5WOB, 40RPM Tag second cement plug @ 178', Drill second plug F/178' -T/ 186', 380GPM, 4-5 WOB, 40RPM. Circulate hole clean. Attempted to test casing with 3rd party tester. Rigs annular failed, Leaking hydraulic oil out flow line. Found Seals failed. Swapped out 4" fixed body rams for 4.5 fixed body rams to perform casing test. (CapStar Rig Manager called for new annular from Casper). PJSM w/ 3rd party tester, rig crew and CPR rep, Rig up tester to choke, open HCR and close pipe rams. Test pressured up to 220psi and broke over to 216+-. Shut down pump and pressure bleed off to 72psi. No casing test. Replace air over hydraulic control for pipe wrangler. TOO H, Laying down 6 joint of 4.5 HWDP, Break Bit and Bit sub off. Close Blind Rams and nipple down rotating head and bad annular. Clean and work on Safety Audit list. New Annular on location 8/19/2020 @ 0400Hrs, install new annular and torque studs.</p>	No Accidents, Incidents or Spills Reported last 24 hrs.
14.0	8/19/2020	8/20/2020	<p>Complete N/U of Annular and Rotating head. (Rig on code 8 due to BOP Failure) PJSM. Perform Koomy Step down Test. Test successful. 1 min 33 sec with 1000 psi left over. Pre-Charge 1050 psi. PJSM with Rig Crew and Pathfinder. Set test plug. Attempt Test on Annular. Test Failed. Investigate leak. Found Annular Cap Leaking. Top inner seal failure. Moved onto to Pipe ram test. Tested Pipe Rams to 250 Low and 3000 High. Held each test 10 min. R/D Test equipment. (Note Test prolonged due to repairing leaking Valve flange and Bonnet door seal. Wait on 8 5/8" Packer. PJSM. P/U M/U 8 5/8" STS Packer and XO with Tech. RIH set at 172' with 15 K tension, Attempt to Pressure test Csg to 250 psi. Unable to get above 210 psi. Bleed off open rams. P/U additional 5 K of tension on Pker. Close PR attempt re-test to 250. Same results. Release Pker without issue. POH L/D 8 5/8" Paker, Secure Well with Blind rams. Wait on Rebuild Parts for Failed Annular. Rig crew N/D set out Failed Annular and Prepped for Repair. Wait for new annular part to arrive from Casper, install new annular element and install annular on BOP and torque up. Pressure test annular with Pathfinder Testing, Good test. 250psi low 10 min/ 1600 psi high 10min. Install Grant rotating head bolt up same, install flow line to rig shaker. Strap and pick up 7 7/8" drilling assemble 7 7/8" Smith FDS+, sn# RJ492, 3X16 jets, Near bit sub, Double pin sub, Bit sub w/ float, 1 -6.5" DC, Stabilizer, 1-4.5" HWDP, Stabilizer, 5 Joints of 4.5" HWDP. TIH to 186'. Wash Ream F/ 186' -T/ 236', 400 GPM, 4-5 WOB, 40 PRM. PSI 526, Torque 100psi. Tagged Hard Cement @236'. Drill cement F/ 236' - T/ 290', 400GPM, 4-5 WOB, 40RPM. PSI 526, Torque 100psi. Wash and Ream F/290'- T/ 655', GPM 450, WOB 0, Torque 180psi, (Sand and Silt at Shakers). Circulate hole clean, 460 GPM, 60RPM. Pump polly sweep down pipe. PJSM w/ NexTier, Rig crew and WSS on cement job. Rig up cementers and Pressure test lines to 3000psi.</p>	No Accidents, Incidents or Spills Reported last 24 hrs.

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Rpt #	Start Date	End Date	24 Hr Summary	Remarks
15.0	8/20/2020	8/21/2020	<p>Circ and Condition for Casing and Cement. No Gas detected in Fluids. POH F/655'. L/D BHA. String pulled Free. No issues pulling BHA through 8 5/8" Csg shoe. Clean and Prep Floor for running Casing. Rig Service. PJSM. R/U Franks CRT. Wait on Double Stack Csg tongs, (Rig TDS unable to achieve proper Torque) PJSM. R/U Power Tongs. P/U M/U 7" Float shoe, 1 Jt of 7" Ultra flush Csg, float collar, 1 Jt Csg. Fill test floats. P/U run 14 jts of 7" Csg. M/U Landing jt. (Note encountered bridge at 365' Work through. Hard Stack out at 450' 45 min to circ and work through. Wash through from 468' to 550'. Casing Shoe depth 640.5'. Circ & Condition Fluids for cement at 6.5 BPM. Full returns. (PJSM. Spot in cement trucks and rig up lines. Pre-Load Top plug in Cmt head. WSS verified. PJSM w/ NexTier, Rig crew and WSS on cement job. Rig up cementers and Pressure test lines to 3000psi. Pumped 15bbls fresh water ahead, pumped 92bbls 450sk of Class G 15.8ppg, yield 1.15cuft/sk, Mix water 4.98gal/sk. Shut down wash up lines, Displace with 23bbls of 8.4ppg fresh water. bumped plug @ 1956hrs @1223psi, bleed off .08bbls check floats, floats held. pressure back up to 1083psi for casing test, no test pressure bleed off 100psi in a minute and a half. Rig down cementers. Rig down Cementers. Wait on Cement for 6hrs starting @ 2000hrs, PJSM w/ KLX wireline, rig crew and WSS. Rig up KLX Wireline truck and preform Temperature log for cement top. Top of cement @329'. slack off casing @0200hrs. Slack off 7" casing, Casing Held, Release Franks CRT, Remove landing joint and laydown CRT. Nipple down CapStar 11' 3K BOPE. Cut off 8 5/8" casing, Make up GE 7" 5K Wellhead on 7" casing.</p>	No Accidents, Incidents or Spills Reported last 24 hrs.
16.0	8/21/2020	8/22/2020	<p>PJSM. Cut and Dress 8 5/8" Casing. Set in and torque 7 1/16" 5 K casing head. Set in spacer spool, 7 1/16" double gate, Annular and Rotating head. Torque flanges with Pathfinder N/U services. N/U Prolonged due to Incorrect API Ring gaskets installed. N/D inspect ring groves and install correct R46 gaskets. (Stopped job and discussed importance of checking that correct parts are being installed when not sure for any task being performed) PJSM. Fill Casing. Psi test Casing to 1000 psi for 10 min, no loss recorded, Set test plug test BOP. Test PR & inside kill valve 250 L, 3000 H, Test outer kill 250 L, 3000H, Test annular 250 L, 2100 H, Test BR and inside Choke valve 250 L, 3000 H, test outer valve 250 L 3000 H. All test held 10 min each and charted. End of tour debriefing. Main topic. Stop the Job if not sure of Task being performed. Finish BOP Test Remove test plug from well head. Install flow nipple of rotating head and flow line, Chain down BOP. Pick up BHA, 6 1/8, XR+PS Smith bit sn# RD3410, 3 X20 jets, 6" Near bit stabilizer, Double pin X-O, Bit sub, 4 .75 DC, 6" Stabilizer, 4.75 DC, 6" Stabilizer, 4- 4.75 DC, 3.5 IF X 3.5 XH X-O. Trip in hole to 595'. Drill float and shoe and shoe track F/ 595' - T/655'. 5-7 WOB, 420 GPM, 20 RPM. Wash and ream F/ 655' - T/ 726', 5-7 WOB, 420 GPM, 20 RPM. Trip on hole F/726' - T/1379'. Run 2-4 joints at a time and stop to circulate bottoms up. Bridge encountered @ 1338' and 1348' Pump through both. Wash and ream F/ 1379' - T/ 1535, 5-7 WOB, 500 GPM, 20 RPM. Tagged hard cement @ 1535'. Drill cement plug F/ 1535' - T/ 1659 6-8 WOB, 500 GPM, 40 RPM. Replace Hydraulic hose on rig under floor.</p>	No Accidents, Incidents or Spills Reported last 24 hrs. 1 Stop the Job. Crew member inserted wrong Ring gaskets in BOP. Issue caught corrected and discussed.

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17.0	8/22/2020	8/23/2020	<p>PJSM. Continued Drilling Cement from 1,659' to 1,800'. Checking samples started seeing Formation at 1,674'. formation Presence increasing. Sample check every 5 ft. Last 4 samples taken from 1,770 to 1,800' 100% formation. Drill Parameters 40 to 45 RPM 7K WOB 510 GPM. Pump Sweep circ clean. Conference call with Supt. Circ and Scope Walk to short trip double joints. Trip Drill string to 7" Csg shoe at 640 ft. Pulled 10 to 12 K over at 1,672' thru 1,655', 6 t/ 8K 1,608 thru 1,600', 1,525 thru 1,460' 5 T 6K . remaining string 2 to 3 K normal drag with BHA. No issues pulling into Casing shoe. Change Saver sub. TIH to 1,800' without issue. Pump High Vis Sweep Circ Clean. Returns small fines, Medium to large pieces of formation and some cement. Reduce rate after hole was clean Wait on Slick line Gyro. Wait on Slick line Gyro. PJSM. Spot in R/U Slick Line unit. Program Gyro tool. RIH to Crows foot ring at 1,782'. Record Gyro data in 1 ft increments from 1,780 to surface. POH R/D recover Data. Rig down logging truck. Circulate bottoms up while verifying Gyro Data. POOH on stands, Lay down BHA, Break off bit and grade. TIH open ended with 29 stands of 4" drill pipe, Tagged bottom @ 1796'. Circulate bottoms up while cementers spot trucks and rig up lines. PJSM with NexTier, rig Crew and WSS, Rig up 3.5XH Circulating swedge, make up cement line and pressure test lines to 2000psi, Pump 25bbls fresh water ahead, 14bbls/80sk of 17# Cement, yield .99ct/sk, water req 3.78. displace with 17bbls of fresh water. Plug is balanced. (Calculated cement top 1567', CIP @0030hrs). POOH 8 Stands of 4" Drill pipe (503') @ 2min per stand, Circulate pipe clean, (no cement to surface). POOH to surface with open ended pipe. Wait on cement, Rig service, Pick up BHA and TIH to casing shoe 635'.</p>	No Accidents, Incidents or Spills Reported last 24 hrs. 1 Equipment damage reported.
18.0	8/23/2020	8/24/2020	<p>PTSM. WOC. Crew Serviced Rig (Change oil & Filters, Serviced Light plant same) Went through Mud pumps. Changed 5 seats & 5 valve on Mud pump #1. (Check Samples every hour). TIH. Tag TOC at 1,521' with 6 K. P/U sit 6 K back on Plug. Solid tag. Break circ. Circ Bottoms up. Bottoms up Produced Large amounts of small Fines and Contaminated Fluids (Green cmt). Tag plug at 1,521' drill to 1,569.5' with 2 to 3K WOB, 55 RPM, Stage RPM to 68, WOB 3 to 4.2 K. Catching Sample at 1,530' 100% Cmt, 1,545' 100% Cmt, 1,560' 100% cmt, at 1,563' Wt fell off to 2.6, ROP jumped from 17 Ft/Hr to 66 then 99 Ft/hr WOB jumped back to 4 K, ROP Fell to 1 ft/hr. After 5 min checked sample at bottoms up had 50% Formation 50% Cmt, Checked at 15 min of Same ROP Sample same 50/50. Call into Supt. L/D Connection P/U to 1,533' Circ at idle with 5 RPM. Held meeting with Supt decision to POH check bit. POH String pulled Free. No issues pulling BHA through Casing shoe. L/D BHA. Wait on orders, Conference with Robert Samples on plan moving forward. Strap and pick up NOV 5" 7/8 3.8, .512 rev/gal motor, Smith 6.125 bit, 6- 4.75 DC and X-O sub, Trip in hole 21 stands to 1514'. Control Drill cement F/ 1521' - T/1671, WOB 2K, GPM 250, RPM 20. PSI 748, Torq 144 ft/lbs. Drilled cement plug F/ 1521' - T/ 1551', Lost WOB F/1555' - T1567'. Drilled cement plug F/1567' - T/1568'. Lost WOB F/1568' - T/ 1571'. Cuttings Samples show 95% cement and 5% formation. in Original open hole @1670'.(Trash and surge of old mud on shaker).</p>	No Accidents, Incidents or Spills Reported last 24 hrs.

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19.0	8/24/2020	8/25/2020	<p>PTSM. Continued Drilling on Cement from 1,684' to 1,800'. Cement percentage started falling off at 1,640'. Had Conference call with Supt's Robert Samples and Cole Carveth. Decision made to Drill to 1,850' and Run Gyro Data tool. At 1,832' encountered Drl break, String torqued motor Stalled, P/U work free, had driller Feather back down using 500 to 1000 WOB, Encountered gas spike, Time drilled into original Wellbore to 1,884', Ream through window until no Over pull or torque was encountered, Continue to Wash and Ream Wellbore to 1,948'. Wash and Ream open hole F/1948' -T/2132', 320 GPM, 30-40 RPM, 2-4 WOB, 1150 PSI, 960 ft/lb torq. Max gas spike while reaming 2350 units, Fell off to 285 units. Pump PHPA sweep, circulate bottoms up=, Max gas on bottoms 1414 units, fell off to 325 units. Shut down pumps check for flow, No flow. PJSJM, Rig up CoreTech slick line, Run Gyro tool to 2107', Pull out and rig down. Circulate bottoms up. Max gas 350 units. shut down check flow. No flow. Wiper trip 11 stands to 1452', 18K over pull @1575, Work pipe through tight spot, pulled free to 1452. Circulate bottoms up max gas 319 units, shut down pumps check flow. No flow. POOH to surface on stands. Lay down drill collars, NOV mud motor. TIH, Make up bit and bit sub w/ float and crows foot, pick up 6 drill collars TIH to 2132'. Run in hole 4-9 joints break circulation and circulate Bottoms up and gas out of hole, Max gas 1800-3300 units. Continue running in hole T/2824'.</p>	No Accidents, Incidents or Spills Reported last 24 hrs.
20.0	8/25/2020	8/26/2020	<p>PTSM. Continued cleaning Well from 2,824' to 4,749'. Running 6 Jts at a time 189', Break circ. Circ Gas and Formation out of Well. Well unloading Large amounts of cuttings, Btms up at 3,009', 4910 units, 3,198' -4,700 U, 3,378' 5113' U, 3,567' - 5153 U, 3,753' - 5,154 U, At 3,753' started running in 8 Jts at a time, 4,002' - 4,889 U, 4,248' - 4,905 Units, 4,498' - 4,789 units. (Note all bridges encountered were worked through and Well bore circulated clean), Rig Service. Clean out from 4,498' to 4,749'. Circ out Gas and Cuttings. Rig Repair, Replace liner, Seat and Valve in #2 mud pump. Clean out hole F/ 4498' T/ 5308, Circulate out gas and hole fill. Max gas 7800 units. Circulate and Condition mud. Mud gas cut and aired up. Raise mud WT from 9.9ppg to 10.1ppg. Clean out hole F/ 5308' T/ 5432, Circulate out gas and hole fill every 2 joints run. Max gas 7400 units. Circulate Bottoms up gas through Mesa choke and flow back tank. SIDPP while circulating 550psi, SICP while circulating 110psi. @ 154 GPM slow pump rate. Open back up circulate through flow line and recover 125bbls in Mesa flow back tank.</p>	No Accidents, Incidents or Spills Reported last 24 hrs. equipment damage reported, Rental loader.
21.0	8/26/2020	8/27/2020	<p>PTSM. Continued Circulating Gas from Well, Empty Mesa Seal tank. Discussed our Plan of Attack for moving Forward with Supt Robert Samples. PJSJM with Rig crew and Third party on Forward operation, Shut Down Pump closed annular. Check Valve alignment, Circ thru choke to verify Choke was clear to Mesa's Separator. P/U RIH with 3 Jts. From 5,432' to 5,525'. Bridge encounter at 5,541' to 5,452. Washed thru. Circulate Gas to surface at 440 GPM. Gas Spiked at 5580 Stks, Gas burping out of Possum belly with 8182 units, shut pumps down Close annular take returns to Mesa Separator, 625 SPP, 165 Csg psi, Chased gas with 45 bbls of 10.2 Drl mud. Shut down bleed off all psi, Open BOP circ remaining Gas from Well bore. P/U RIH with 4 Jts DP F/5,525' to 5,649' with out issue. Gas Spiked at 5660 Stks, Gas burping out of Possum belly with 7143 units, Shut pumps down Close annular take returns to Mesa Separator, 625 SPP, 165 Csg psi, Chased gas with 45 bbls of 10.2 Drl mud. Shut down bleed off all psi, Open BOP circ remaining Gas from Well bore. Recovered more Green oil. Use 3rd Party Compressor to transfer fluid back to Mud tank. Raise Mud Wt up to 10.3 heavy. Continue Clean out F/5,649' to 5,774'. Encountered Bridge at 5,654' to 5,665' Wash and ream took 6 to 10 K to break thru. Gas Spiked at 6100 Stks, Gas burping out of Possum belly with 9360 units, Shut pumps down Close annular take returns to Mesa Separator, 638 SPP, 155 Csg psi, Chased gas with 60 bbls of 10.3+ Drl mud. Shut down bleed off all psi, Open BOP circ out Gas Max units 9718. Shut Well again circ 95 bbls to Mesa. Open BOP Continue circ Gas cut mud out. total of 240 bbls of circulation before clean mud reached surface. (Dusting system to 10.5+). Continue Circulating and raising mud WT to 10.5ppg, Mudded up 150bbls in Pre-mix tank to 38vis and 10.6ppg. Pump and rotate F/5774' - T/5897', 4 joints @ 3min a joint. Circulate bottoms up. Transfer out 30bbls of mud to Mesa tank, Transfer in 30bbls of fresh mud fro</p>	No Accidents, Incidents or Spills Reported last 24 hrs.

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22.0	8/27/2020	8/28/2020	<p>PTSM. Continued Circulating Hole clean. Notice Koomy not holding Pressure. Trouble shoot issue. (Continued Circ and work string. (Rig on code @ 07:00) Called Weatherford for Portable Koomy. R/U Function test BOP. (3 hrs 45 min NPT). Continue to Wash and Ream hole F/6,830' to 7,117'. Encountering intermittent Bridges each connection. Excessive torque, String stalling out and Packing off. Ream each connection as needed. Circ Gas out. 60 bbls pump to separator. (Max Gas 8751 units. Continue Wash and reaming F/7,117' to 7,577', Numerous bridges encountered. Gas units average 7500. Max Gas encountered 9030. Circ Gas out. Closed in Annular pumped 95 bbls to separator. Continue circulating and swap out drilling mud to Mesa tank. Bring over 95bbls of clean mud from Pre-Mix tank. Wash and ream in hole F/7577' - T/8086'. @ 3min/joint, WOB 0-2, GPM 361, 1975psi, RPM 40-50, Tor 1128-1404 ft/lbs. Tagged cement plug @8076'. and held 11K for 3min. Preform clean up cycles, pumped first PHPA sweep down drill pipe to 7750stk. Max gas 9348 units. Flow was uncontrolled and shut well in @2129 hrs. Well Shut in Circulate through choke to Mesa flow back tank. Weight up mud from 10.6ppg to 10.8ppg. Circulate kill mud of 10.8ppg SIDP 110psi/ SICP 47psi, ICP on DP 736psi/ ICP on CP 169psi, FCP DP 905psi/ FCP CP 134psi. Total stokes pumped surface to surface 7219 stk's. Shut down check flow, No Flow. Utilized 2 ensign vac trucks to help transfer mud from flow back tank to Pre-Mix tank along with Mesa operator and Fluid Pro operator. Break circulation after shut in, Hole packed off, work tight hole and try to establish circulation, Back ream out 12 stands F/8086 - T/7233'. Established circulation @7233, Stage up pump to full pump rate 365GPM. Circulate condition mud. Transfer out and ship off 80bbls of contaminated mud, transfer in 80bbls from Pre-Mix, add bar to maintain 10.8 mud WT. shaker blinding off with hole fill cuttings, circulate shaker clean.</p>	<p>No Accidents, Incidents and 1 Spills Reported last 24 hrs. 3.75 of NPT due to Failed Koomy.</p>
23.0	8/28/2020	8/29/2020	<p>PTSM. Continued with mixing 10.8 ppg mud in Pre-mix while Circulating. Pump High Vis Sweep with medium Fine Walnut. Sweep brought back Large amounts of Fine to medium Shale. Update SPR. Wash and ream from 7,297' to 7,421' bridge encountered at 7,387' to 7,397'. 10 K to break through. Circ hole clean with 19.9 ppg fluid, btms up Gas 1205 units. Conduct Flow Check. (Well static). Pump 30 bbl 12.5 ppg Dry Job. (Circ was pumped at 371 GPM at 1945 psi). POH from 7,421' to 1,491'. Encountered tight hole from 6,920 to 6,908'. 12 to 15 K. Attempt to run back through failed P/U rotate through, Pulled back through troubled area W/O issue. Well bore pulled free until 2,140' Work through tight spots to 1,745'. unable to move Up, Down or Rotate, engage pump Well packing off, Broke free circ clean, circ and back ream to 1,491'. Circ clean while crew changed did handovers. Continue POOH to 7" casing shoe. 590'. Rig Service, Slip and Cut drilling line, Circulate hole. TIH F/590' - T/ 2327', Break Circulation every 2500'. Rig Repair, Rigs Light plant generator broke down, (Lost all electrical power to rig). Circulate with #1 mud pump taking returns to sand trap with shaker bypassed. Wait for stand-alone 230KW 240-volt 3phase generator from Innovative Solutions and wire in to Light plant breaker panel. Check rotations on electric motor. Rig Manager has new Generator, Electrician and welder coming from Casper to swap out Gen, Estimated time of arrival 0500hrs. TIH F/2327' - T/ 6861', Break Circulation every 2500'. Work tight hole Pump and Ream clean @ 3015,3420,3565,3630,4679,5217,6817. Wash and Ream encountered Bridge @6816', Start washing and reaming to bottom, Circulate hole clean before making connection. Current Mud WT 10.9ppg and background gas is 550 – 1500 units.</p>	<p>No Accidents, Incidents or Spills Reported last 24 hrs. 4.25Hrs of NPT for Light Plant Generator.</p>

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Rpt #	Start Date	End Date	24 Hr Summary	Remarks
24.0	8/29/2020	8/30/2020	<p>Complete bottoms up circulation. Screens blinded off with Fine, Small & medium pieces of Shale. Continue Washing and reaming F/6,984' to 7,168'. Encountered Tight hole, packing off and stalling string at 6,987 to 6,995' (Ream and back ream tight spot 6,990' until free) 7,050- to 7,107' Taking Wt and Packing off. 7,107' to 7,168', Same. Pump High Vis Sweep with Walnut Shell. 500 Stks up Well String Packing off pulling tight. Work string until free. circ Sweep out. Screen Blinded with Fine, Small and Medium size pieces of shale. Continue Wash and Ream operations. 7,168' to 7,274'. Encounter Stall out & pack offs starting at 7,168' to 7,274'. Worked all tight spots Free. Supt called and called off further progress. Circ and Work string build Dry pipe Slug. Flow Check. Well Static. Pull 3 stand. Pump Dry Job. Continue POH. pulled 4 to 14 K first 5 stands. Pulled into window at 1,832' W/O issue. Pulled 16 K over at 1,550' ran through pulled back through W/O issue. Continue POOH on stands, Lay down drill collars, bit and bit sub. TIH with open ended drill pipe T/ 7235', (Wash tight spots and last 3 stands in hole). Circulate bottoms up @ 7235" Working string, total of 20886 stks, While Cementers rig. PJSM w/ NexTier cementers, Rig Crew, WSS, Install circulating 3.5XH to 2" 1502 hammer union swedge, rig up cement line. Pump First plug. Pump 20bbbls of freshwater spacer, Mix 15.8ppg cement Yield 1.52 Mix Ratio 6.19. Mix 6bbbls of cement and pumped 2bbbls down hole pump truck broke down. Rig down NexTier Equipment off pipe, Make Top Drive back up to pipe, circulate out 2+bbbls of cement and wait for new cement pump truck.</p>	No Accidents, Incidents or Spills Reported last 24 hrs.
25.0	8/30/2020	8/31/2020	<p>Circ out cement. Hole unloading Large amount of cuttings. Send cement and Contaminated mud to overboard tank. Mud system severely contaminated. Wait on Vac truck. Vac truck pulled failed mud from suction tank plus 130 bbls. transfer in 92 bbls clean fluid. Circ and Condition fluids. Wait on Nio blend Cement, Bicarb to treat mud (PH 10+). Spot in Pump Truck. PJSM. Spot in bulk truck. R/U Fill test lines to 3000 psi, Pump 20 bbls FW a head, Mix and Pump 36 bbls of 15.8 ppg Nio blend Cmt (145 sx) Slurry is 218.9 Cuft with yield of 1.52, Displace with 4 bbls of FW and 60 bbls of 11 ppg Drl mud. Caught psi 7 bbls early, shut down no psi no Flow back, Break off R/D. Plug set at 7,235' TOC 6,677'. L/D 14 double Jts, L/D singles to 5,990'. Circ bottoms up. (No Cement to surface or Contaminated mud). L/D Drill string to 5,805' Hydraulic hose on Pipe Wrangler blew. Circ at 474 GPM fix Failed hose. Continued laying down Drl string to 3,914'. Shut down due to Main Hydraulic pump for Pipe Wrangler Failure. (unable to L/D Pipe) Change Failed Centrifugal Pump (Hole in Snail housing). (Unable to roll tanks or transfer out for cement. Continue replacing Hydraulic pump for pipe wrangler and replace Hopper pump snail. Lay down 22Jts of 4" drill pipe to 2327'. PJSM NexTier, Rig Crew, WSS, R/U Fill test lines to 2500 psi, Pump 20 bbls FW a head, Mix and Pump 23.5 bbls of 15.8 ppg upper Pierre blend Cmt (115 sx) Slurry yield of 1.15, Displace with 2.5 bbls of FW and 30 bbls of 10.9 ppg Drl mud. Shut down no psi no Flow back, Break off R/D. Plug set at 3287' TOC 3007'. POOH @ 1min/Jt. 13 joints to 2822', Circulate drill pipe capacity. Continue Laying down 27 joints for a total of 40 joints out to next plug point 1985'. Circulate bottoms, No Cement or Contaminated Mud to Surface, Monitor background gas with Handheld monitor, 0LEL. Well Static, No Flow. PJSM NexTier, Rig Crew, WSS, R/U Fill test lines to 2500 psi, Pump 20 bbls FW a head, Mix and Pump 75 bbls of 15.8 ppg.</p>	No Accidents, Incidents. 1 Spills Reported last 24 hrs. Spill reported to EH&S 1bbl from hopper pump. 10.5Hrs of total NPT.

Well Name: AMOCO-WESTAN-CAVANAUGH 1

API # 05005062030000	Surface Legal Location	Field Name	Permit Number	State CO	Well Configuration Type
Ground Elevation (ft) 5,591.00	Casing Flange Elevation (ft)	Orig KB-Ground Distance (ft) 12.00	KB-Casing Flange Distance (ft)	Spud Date 2/24/1971 00:00	Final Rig Release Date 9/3/2020 13:00

Rpt #	Start Date	End Date	24 Hr Summary	Remarks
26.0	8/31/2020	9/1/2020	TIH to 7" Casing shoe. Wait on Sample to harden. TIH OEDP tag Cement plug at 1,448'. Tag with 5K. Set on plug with no drop off of Wt. P/U circ clean at 650 GPM. Contaminated Mud only. No Cement. No Gas or LEL's recorded in returns. PJSM. R/U Cement line. Fill and test to 2000 psi. Pump 20 bbls FW spacer a head. Mix and pump 82.9 bbls of G neat cmt with 2% Calcium Chloride. Displace with 2.5 bbls FW and 4 bbls 8.9 ppg Drl mud. Plug balanced. R/D. Plug set at 1,429', Calculated TOC 653'. POH from 1,429' to 580'. String pulled Dry. Circ 2 bottoms up volumes. Rack back 3 stds, L/D remaining Drill string. Top fill annulus, Shut Well in with Blind Rams, Monitor for Fluid Migration and Pressure build while WOC. TIH to 621' Break Circ. Continue in hole Tag Plug # 4 at 690'. Set 5.6K on Plug held solid. P/U to 690'. Break circ. Circ 2 bottoms. Recovered Contaminated Mud. No LEL's recorded in returns. PJSM with both crews and Cement crew. R/U fill lines prsi test to 2500 psi. Mix and Pump 20 bbls FW a head, 14 bbls of G Neat cmt with 2% Calcium Chloride, displace with 4 bbls FW, Plug balanced. R/D, Plug set at 690' Calculated TOC 400'). POOH with stands to 350' Circulate pipe clean, Continue POOH on singles laying down drill pipe. While WOC break down stands on hydraulic pipe trailer, Clean sub, haul mud out of mud tanks. Isolate #1 mud tank to finish cement squeeze job. PJSM: Hang shive and run E-Line. Make up Perf Gun with. Run in hole w/ Perf gun, Tag cement @647' on wire line. POOH with wire line, rig down and disarm perf gun, rig , rig down wire line. stage truck off location. TIH with 21jts of 4" open ended drill pipe, tag cement plug @643' set 9K WT no slack off. PJSM with rig crew and Cement crew. R/U fill lines prsi test to 2500 psi. Mix and Pump 10 bbls FW a head, 11 bbls of G Neat cmt with 2% Calcium Chloride, displace with 4 bbls FW, Plug balanced.R/D POOH laying down singles. WOC 6hrs till 0800hrs, Notify wire line on run time, Clean rig.	No Accidents, Incidents or Spills Reported last 24 hrs.
27.0	9/1/2020	9/2/2020	PTSM. WOC. PJSM. Spot in R/U Wire line, M/U Perf gun. .70 4 SPF 2 guns total of 8 shots, RIH tag TOC at 344' P/U shot holes at 315' Bttm, Top holes at 313'. POH R/D WL. (Note Well went on Vacuum after shots fired. P/U Jts RIH to 308'. Close PR. Mix 100 lbs of SAPP pump down DP at 3.5 BPM. Had returns in 7.1 bbls Pump. Circ clean. (Note Circ through Perf hole up 8 5/8" & 7" Csg annulus. Full returns. PJSM. R/U Cmt equipment. Pump 20 bbls FW a head with full returns. Mix and Pump total of 42 bbls of 15.8 ppg Cmt (206 sx), Had cement to surface in 17.1 bbls, pumped additional 8 bbls to surface, Shut down open BOP continued pumping 15.8 G neat cmt. Had cmt to surface inside 7" Csg in 12.2 bbls (60 sx), Shut DN R/D. L/D Drill Sting. String pulled dry. Run 1 jt in hole. R/U cmt line. Pump 3.4 (17 sx) bbls of cmt had returns out 2" csg valve. Shut down pull jt & L/D. P/U cmt line top fill 7" Csg with 1.5 bbls (9 sx) of 15.8 ppg cmt. R/D. PJSM. N/D Set out BOP. Top off with 3.9 bbls 15.8 G Neat Cmt (19 sx). Clean Mud tank and Rig down equipment. (Rig Released at 16:30 hrs on 9/1/2020). Continue Rigging down equipment for Load out. Rig Down, Drain and pickle pumps, Rig down mud tanks, remove mud lines & suction lines, Rig down floor equipment, prep rig floor to scope in derrick and lay over, haul out Weather ford rental BOPE, Haul out rental pipe, drill collars and reamers. Fluid pro finish rigging down solids control equipment. Bottom out water tanks and haul to frac pad. Prep rig for trucks in the am.	No Accidents, Incidents or Spills Reported last 24 hrs.
28.0	9/2/2020	9/3/2020	PJSM. Complete Rig down. Clean and Load out all solids control equipment. Load and Stage 40% of CapStar equipment on Staging Pad, 60 % transported to CapStar yard. Clean Load and Haul Crestone's Mats and equipment to Wattenberg Yard. Load out and Haul off all Mesa equipment. Clean and remove Containment Liner. Hydro-Vac cleaned out cellar Prep for Final Cut and Cap. Rig 100% off location, Equipment left for AM load out is HB shacks, 6 Crestone Rig Mats. All third party personnel off location at 17:15. Shut down for the Night.	No Accidents, Incidents or Spills Reported last 24 hrs.
29.0	9/3/2020	9/4/2020	PJSM with WSS's, BS trucking. HB rentals. Load out remaining Rig Mats, R/D Shacks load and Haul. HB shacks released at 09:00 100% off location at 13:00 hrs. Behren to Remove Sound walls on 9/8/2020 Crestone Rep Ran Flare Camera, No Hydrocarbons or LEL's Present, Cut Cemented Casing 5 ft below Ground Level. Reshoot Flare, No Hydrocarbons. Weld on Cap and Dry Hole Marker. M & M Back filled Capped Well. All Annular Spaces Filled with 15.8 ppg Cement	No Accidents, Incidents or Spills Reported last 24 hrs.